

Docket No.: 264464US0PCT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF:

GROUP: 1616

Satoru TAKAHASHI, et al.

SERIAL NO: 10/521,755

EXAMINER: brown, c.

FILED: January 19, 2005

FOR: HERBICIDAL COMPOSITION

DECLARATION UNDER 37 C.F.R. § 1.132

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

Sir:

1. Now comes Makoto Fujinami who deposes and states that:
2. I am a graduate of Kyoto University and received my Master's degree in the year 1997.
3. I have been employed by Kumai Chemical Industry Co., Ltd. since 1997, and I have been conducting research in the field of herbicide compositions and other related products of the company for 12 years.
4. I am familiar with the prosecution history of the present application (i.e., U.S. 10/521,755) and/or the prosecution history of the present application has been explained to me by counsel.
5. I have read and understood the Office Action of January 26, 2009 and/or the January 26, 2009 Office Action has been explained to me by counsel.
6. I have read and understood the Ziemer (U.S. 2003/013010) and Nakatani (U.S. 7,238,689) publications cited by the Examiner in the January 26, 2009 Office Action or foreign language equivalents thereof.

7. In order to demonstrate the effects of one or more embodiments of the present invention, the following experiments were carried out by me or under my direct supervision and control.

Test Example X-1

Tests for herbicidal effects were conducted in the same manner as described in "Application Example 1" on pages 143 to 146 of the present specification provided that the weeds were changed to green foxtail (*Satric viridis*) and velvetleaf (*Abutilon theophrasti Medic*).

The herbicidal effects are indicated by percentage (from 0 to 100%) and the results are indicated in Table X-1 (see the Appendix).

Further, theoretical herbicidal effects obtainable by blending herbicides are calculated from the following formula [1] (Colby's formula) and the calculated theoretical values are indicated by the Compounds titled "(Exp.)" in Table X-1.

$$\text{Formula [1]: } T = P_1 + [P_2(100 - P_1)/100]$$

P₁: Herbicidal effect obtained when a predetermined amount of active ingredient of a herbicidal component 1 is applied to weeds.

P₂: Herbicidal effect obtained when a predetermined amount of active ingredient (y) of the herbicidal component 2 is applied to weeds grown under the same conditions.

T: Herbicidal effect obtained when a predetermined amount of active ingredient (x) of the herbicidal component 1 and a predetermined amount of active ingredient (y) of the herbicidal component 2 are applied to weeds grown under the same conditions.

Colby's formula: Please see "Calculation synergistic and antagonistic response of Herbicide combinations". Weeds 15, pages 20-22; 1967.

Test Example X-2

Tests for herbicidal effects were conducted in the same manner as described in Application Example 1 of the present specification, and the herbicidal effects are indicated by percentage (from 0 to 100%) as made in Test Example X-1, and the results are indicated in Table X-2.

The weed used for the test was common chickweed (*Stellaria media Villris*).

"(Exp.)" in Table X-2 is a theoretical value of herbicidal effect obtainable by blending the herbicides as previously mentioned.

Test Example X-3

Tests for herbicidal effects were conducted in the same manner as described in Application Example 1 of the present specification, and the herbicidal effects are indicated by percentage (from 0 to 100%) as made in Test Example X-1, and the results are indicated in Table X-3.

Weeds tested were crabgrass (*Digitaria ciliaris*) and common lambsquarters (*Chenopodium album*).

"(Exp.)" in Table X-3 is a theoretical value of herbicidal effect obtainable by blending the herbicides as previously mentioned.

From the results indicated in Tables X-1, X-2 and X-3, it is clearly understood that the herbicidal effects of the herbicidal composition of the present invention are higher than the theoretical values of herbicidal effects of respective herbicides.

8. It is my opinion based on the data of Tables X-1, X-2 and X-3 that the herbicidal composition of the present claims (i.e., one that contains the ingredients identified as components i) and ii) recited the present claims) provides an herbicidal effect that is greater than the theoretical cumulative effect. Such a result would not have been expected

from theory which, as explained above, provides a different lower cumulative herbicidal result.

9. The undersigned petitioner declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

10. Further deponent saith not.

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Makoto Fujinami
Signature Makoto Fujinami
April 13, 2009
Date